5

## **ABSTRACT**

A mechanism is provided for detecting a defect in a populated sample having a thickness dimension substantially smaller than the length and width dimensions thereof, the populated sample having a first side and an opposite second side, at least said first side of said populated sample having one or more Surface Mounted Components. The mechanism exploits a standard thermographic image which may be used in a detection method comprising

- 1) directing a thermal wave at said second side of said populated sample
- 2) recording a thermographic image of the first side of said populated sample once a surface thereof reaches a predetermined transit temperature or a predetermined transit time period has elapsed; and
- 3) analysing the obtained thermographic image by comparing the so obtained thermographic image with a standard thermographic image.